AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus for receiving data comprising:

an edge processor to make decisions using a plurality of edges of a received data stream;

a communication circuit coupled to the edge processor to convert communications with the edge processor from a first format to a second format; and

a plurality of current sources coupled to the communication circuit, said current sources coupled to form differential pairs to convert a differential voltage corresponding to the communications to a differential current, each of the differential pairs being coupled to a resistor.

2. (Previously Presented) The apparatus according to claim 1, wherein said first format includes uni-directional signaling.

3. (Original) The apparatus according to claim 1, wherein the second format includes simultaneous bi-directional signaling.

4. (Original) The apparatus according to claim 3, wherein the first format includes uni-directional signaling.

5. (Previously Presented) The apparatus according to claim 1, wherein the second format includes differential simultaneous bi-directional signaling.

6. (Cancelled)

7. (Cancelled)

8. (Previously Presented) An apparatus comprising:

a first unit to convert a signal between a transmitter and an edge-based receiver from unidirectional signaling to differential simultaneous bidirectional signaling;

a plurality of current sources, said current sources coupled to the edge-based receiver to form differential pairs, said differential pairs operative to convert a plurality of differential voltages to a plurality of differential currents; and

a plurality of resistors coupled to each of the differential pairs to sum said differential currents to yield a single differential load.

9. (Previously Presented) The apparatus according to claim 8, wherein said plurality of differential voltages comprise a plurality of differential voltages from the transmitter and a plurality of differential voltages from the receiver, respectively.

10. (Previously Presented) The apparatus according to claim 1, wherein differential voltages are less than the safe operating voltage of said receiver.

11. (Previously Presented) A system comprising:

a transmitter including a current mode driver, a high impedance output and a dual end termination;

an edge based receiver coupled to the transmitter including an edge processor operative to make decisions using a plurality of edges of a received data stream;

a conversion circuit coupled to the edge based receiver to convert signaling between the transmitter and the receiver from a first format to a second format;

a plurality of current sources coupled to the conversion circuit to convert a plurality of differential voltages to a plurality of differential currents; and

a plurality of resistors to sum said plurality of differential currents in order to yield a single differential load.

12. (Original) The system according to claim 11, wherein said first format includes unidirectional signaling.

13. (Original) The system according to claim 11, wherein said second format includes simultaneous bi-directional signaling.

14. (Original) The system according to claim 11, wherein said second format includes differential simultaneous bi-directional signaling.

15. (Original) The system according to claim 14, wherein said first format includes unidirectional signaling.

16. (Original) The system according to claim 15, wherein said conversion circuit operates as a voltage/current subtraction circuit.

17. (Cancelled)

18. (Previously Presented) The system according to claim 15, wherein said conversion circuit further comprises:

the plurality of current sources coupled to the edge-based receiver to form a plurality of differential pairs, said plurality of differential pairs operative to convert the plurality of differential voltages to the plurality of differential currents; and

the plurality of resistors coupled to each of the plurality of differential pairs to sum said plurality of differential currents to yield the single differential load.

19. (Currently Amended) A method ~~for converting a signaling format between a transmitter and an edge-based receiver~~ comprising:

creating a plurality of differential pairs;

converting a plurality of differential voltages in said plurality of differential pairs to a plurality of differential currents:

coupling the plurality of differential currents to an [[the]] edge-based receiver; and

summing the plurality of differential currents to yield a single differential load.

20. (Previously Presented) The method according to claim 19, wherein the plurality of differential voltages comprise a plurality of differential voltages from the transmitter and a plurality of differential voltages from the edge-based receiver, respectively.

21. (Original) The method according to claim 20, wherein the edge-based receiver comprises an edge processor operative to make decisions using a plurality of edges of a received data stream.

22. (Previously Presented) A computer readable media having encoded thereon instructions causing a processor to convert a signaling format between a transmitter and an edge-based receiver by:

creating a plurality of differential pairs;

converting a plurality of differential voltages in said plurality of differential pairs to a plurality of differential currents;

coupling the plurality of differential currents to the edge-based receiver; and

summing the plurality of differential currents to yield a single differential load.

23. (Previously Presented) The computer readable media according to claim 22, wherein the plurality of differential voltages comprise a plurality of differential voltages from the transmitter and a plurality of differential voltages from the edge-based receiver, respectively.

24. (Original) The computer readable media according to claim 23, wherein the edge-based receiver comprises an edge processor operative to make decisions using a plurality of edges of a received data stream.